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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,479	03/29/2007	Bradley L. Urquhart	10935-35	7049

1059 7590 12/22/2008

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EXAMINER	
THOMAS, TIMOTHY P	

ART UNIT	PAPER NUMBER
1614	

MAIL DATE	DELIVERY MODE
12/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,479	URQUHART ET AL.	
	Examiner	Art Unit	
	TIMOTHY P. THOMAS	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-15* is/are pending in the application.

4a) Of the above claim(s) *2 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 7-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicants' arguments, filed 8/12/2008, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

2. Applicant's arguments, see p. 8, filed 8/12/2008, with respect to the rejection under 35 USC 112, 1st paragraph have been fully considered and are persuasive. The rejection of claim 14 has been withdrawn.

The rejection is overcome by the specification amendment removing the reference to prevention.

3. Applicant's arguments with respect to the rejection under 35 USC 103 have been fully considered but they are not persuasive:

Claims 1, 3-5 and 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pendyala, et al. ("Intravenous Ifofamide/Mesna Is Associated with Depletion of Plasma Thiols without Depletion of Leukocyte Glutathione"; 2000; Clinical Cancer Research; 6(4): 1314-1321); and Cohen ("Methyl group deficiency and guanidine production in Uremia; 2003 Feb; Molecular and Cellular Biochemistry; 244(1-2): 31-36; cited in previous Office Action); in view of Wilcox (WO 01/30352 A1; 2001; IDS 8/3/2006 reference).

The rejection is maintained for the reasons of record and the reasons that follow.

Applicant argues that Applicants were able to show for the first time that Mesna is removed from its bound form to plasma albumin (after releasing Hcy) in the plasma and is eliminated by dialysis. The result of Mesna removal from the blood stream into the dialysate, demonstrated in Figure 13, is acknowledged. However, applicant's discussion of two other references to establish that this is surprising and unexpected is not effective. The articles that are discussed (Friedman et al. and Ventura et al.) are not present in the record, and are therefore not effective to establish the position that this result would have been unexpected based on the knowledge in the art at the time of the invention. Applicant is invited to present copies of these articles to establish evidence that removal of Mesna by dialysis would not have been expected. Until provided, the position is maintained that reduction of levels of Mesna or its metabolites would have been expected by dialysis, and therefore the result of Mesna removal is not considered an unexpected result.

Applicant argues that the Examiner's arguments are based on the assumption that dialysis is a surrogate for the functional kidney, but this is not the case in the art, pointing to a number of physiological processes, such as enzymes housed within the kidney that mediate metabolism of drugs and endogenous molecules including homocysteine, giving the example of phosphorus levels that remain elevated in ESRD despite dialysis. Although applicant's point is taken that a properly operating kidney has other functions that would not be present in dialysis; nonetheless, this argument is not persuasive to negate that the method of the claims would have been obvious at the time of the invention for ESDR patients that do not have properly operating kidneys.

Applicant further argues that Pendyala merely provides evidence that Mesna can reduce cystine and homocystine to cysteine and homocysteine; noting that homocystine itself is a dialyzable molecule and its reduction to homocysteine would not be expected to have any effect on dialytic excretion. This is not persuasive; as Pendyala teaches Mesna reduces the disulfides to sulfhydryls, which are readily cleared. Coupling this teaching with dialysis in an ESRD patient, would lead to similar expected behavior when Mesna is administered to an ESRD patient during dialysis; since the increase in homocysteine levels are serious risk factors for cardiovascular related diseases according to Cohen, it provides motivation to apply this method with dialysis to reduce homocysteine levels.

Applicant further argues that a person of skill in the art would not have a reasonable expectation that Mesna could successfully liberate Hcy and itself be liberated; the results reported in Friedman and Ventura teach away from using this approach. Since Friedman and Ventura articles referenced are not present in the application file, the comments related to these articles are not persuasive. The reasons for expectation of the reduction in homocysteine levels have been established on the record; the expectation for liberation of mesna is not a component of the claims.

Applicant further argues that hyperhomcysteinia was known in ESRD patients since before 1980 and has been a hot topic in the area of research and medicine since the mid 1990's; that Pendyala's publication in 2000 teaches Mesna's ability to reduce thiols; if it were obvious to combine Mesna with dialysis for treatment of ESRD, then it would have been obvious well before submission of the instant application in 2003.

This argument is not persuasive as an argument for long felt need. The Pendyala publication from 2000 until the filing of the instant application in 2003 is 3 years. This is not considered a sufficient length of time to establish a "long" felt need.

Conclusion

4. No claim is allowed.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY P. THOMAS whose telephone number is (571)272-8994. The examiner can normally be reached on Monday-Thursday 6:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy P Thomas/
Examiner, Art Unit 1614

/Ardin Marschel/
Supervisory Patent Examiner, Art Unit 1614